Foothills Environmental, Inc.

Industrial Hygiene, Safety & Environmental Services

ASBESTOS AND LEAD BASED PAINT SURVEY

Chesapeake Light Tower
14 Miles East of
Cape Henry, Virginia

Prepared For:

Engineering/Remediation Resources Group, Inc.
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1.0 INTRODUCTION

Foothills Environmental, Inc. (FEI) conducted asbestos and lead based paint inspections in support of the Environmental/Remediation Resources Group, Inc. (ERRG) contract with MMI Engineering, Inc. MMI Engineering prime contract is with the Alliance for Sustainable Energy, LLC. The inspections were conducted at the Chesapeake Light Tower (CLT) located 14 miles off shore and east of Cape Henry, Virginia. The Chesapeake Light Tower (CLT) asset was recently transferred to the U.S Department of Energy (DOE) from the U.S Coast Guard. The light tower was installed in 1965 at a water depth of approximately 38 feet (11.6 meters). DOE intends to repurpose the CLT platform for a Reference Facility for Offshore Renewable Energy (RFORE) at its present location. The National Renewable Energy Laboratory (NREL) has been assigned the lead for refurbishing and operating the platform. The main objective of the platform is to collect engineering, environmental and ecological measurements that will aid ocean energy technology developers and research institutions in the design, erection, and operation of offshore wind turbines.

The work performed as part of this project was completed to meet the following objectives:

- Asbestos Containing Building Materials (ACBM) Survey. An ACBM survey, including sample collection and characterization. The survey should include sampling locations, sample results, and summary of findings, per Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Asbestos Hazard Emergency Response Act (AHERA).

- Lead-Based Paint (LBP) Survey. A LBP survey, including sample collection and characterization, is required of the deck (light tower, helicopter deck and machinery and quarters deck), and above water jacket (structural members, boat landing and maintenance deck). The survey shall include sampling locations, sample results, and summary of findings.

2.0 SURVEY INFORMATION

Mr. Andre Gonzalez, EPA Certified Asbestos Inspector and Lead Risk Assessor, with FEI completed the surveys and associated sampling activities on August 28th through August 29th, 2013. Copies of Mr. Gonzalez's certifications may be found in Appendix A.

2.1 ASBESTOS

2.1.1 General Information and Definitions

For the purpose of this inspection, the CLT has multiple levels and is considered one building or structure as defined by the Asbestos Hazard Emergency Response Act (AHERA)

The following definitions apply to this report:

- The EPA defines ACM as any material that contains greater than one percent asbestos. Materials found to contain one percent or less asbestos are not regulated as ACM.
- Friable ACM is defined as any material that contains greater than one percent asbestos, and which can be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I non-friable ACM means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos. Category I non-friable ACM is not allowed to remain in place during renovation or demolition if it is in a condition where the renovation/demolition activities might cause it to become friable.
- Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than one percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to a powder by hand pressure. Category II non-friable ACM is not allowed to remain in place during renovation or demolition if it has a high probability of becoming crumbled, pulverized, or reduced to a powder during renovation, demolition, transport, or disposal.

2.1.2 Sampling and Analytical Testing

Suspect building materials were grouped into homogeneous areas based on their physical characteristics, color, texture, and application. Suspect materials were divided into one of three categories based on the following homogeneous area classification scheme recognized by the EPA.

- Thermal systems insulation (TSI): any type of pipe, boiler, tank or flue insulation.
- Surfacing material: sprayed or troweled onto a structural building member.
- Miscellaneous: all other suspect materials, including flooring, ceiling tiles, floor coverings, other insulation, finishing materials, etc…

Random bulk samples were collected according to the guidelines published as the Environmental Protection Agency's Final Rule: Title II of the Toxic Substances Control Act (TSCA), 15 USC, Sections 2641 through 2654 and in compliance with 40 CFR, Part 763 and the Colorado Department of Public Health and Environment (CDPHE) Regulation #8. Samples of each suspect material were collected for analysis by a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Core samples collected were placed in air-tight containers for delivery and analysis by Reservoirs Environmental, Inc. in Denver, CO. Samples collected were given unique identification numbers assigned by the accredited Asbestos Inspector for tracking purposes.

All bulk samples collected were analyzed by Reservoirs Environmental utilizing the Environmental Protection Agency's Interim Method for the Detection of Asbestos in Bulk Insulation Samples (EPA 600/M4-82020, December 1982) and the McCrone Research Institute's

The Asbestos Particle Atlas as method references. Reservoirs Environmental Services is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab ID 101896-0, and the American Industrial Hygiene Association (AIHA), Lab ID 101533.

Non-Suspect Materials

The following materials were determined to be non-suspect ACM and were not targeted for sampling during this inventory:

- Black foam insulation on pipes
- Fiberglass mat insulation above ceiling tile
- Fiberglass insulation on ducts
- Metal walls, floors, or ceilings
- Wood floors

Suspect ACM Targeted for Sampling

Suspect ACM identified and sampled at the CLT included:

- Various thermal system insulations (TSI)
- Ceiling tile
- Floor tile and associated mastic
- Tar impregnated felts
- Cove base
- Various caulks
- HVAC vibration damper
- Door insulation
- Fire hose

Walls were not penetrated during the inspection, but the interior walls were observed through pipe, conduit and other penetrations. Fiberglass insulation was observed on some exterior walls and therefore not a suspect material. The tower walls were not insulated at all. Interior walls had either no insulation or fiberglass insulation.

A total of 33 bulk samples were collected. Sample locations are presented in Figure 1.

Table 1 summarizes the analytical results of the bulk sampling:

TABLE 1

Sample Number	Sample Description	Sample Location	Percent Asbestos
CLT-ACM-01	TSI elbow, white insulation with white canvas wrap	Mechanical room	Trace in canvas wrap; 3% chrysotile in insulation
CLT-ACM-02	TSI elbow, white insulation with white canvas wrap	Mechanical room	Trace in canvas wrap; 3% chrysotile in insulation
CLT-ACM-03	TSI elbow, white insulation with white canvas wrap	Mechanical room	Trace in canvas wrap; 3% chrysotile in insulation
CLT-ACM-04	TSI elbow with canvas wrap and white insulation	Generator room	70% chrysotile in wrap; 15% amosite in insulation
CLT-ACM-05	TSI elbow with canvas wrap and white insulation	Generator room	70% chrysotile in wrap; 15% amosite in insulation
CLT-ACM-06	2' x 2' white ceiling tile	Hall by Mech. Room	None Detected
CLT-ACM-07	2' x 2' white ceiling tile	Bedroom 3	None Detected
CLT-ACM-08	2' x 2' white ceiling tile	Office	None Detected
CLT-ACM-09	2' x 2' white ceiling tile	Hall by CO^2 room	None Detected
CLT-ACM-10	2' x 2' white ceiling tile	Bedroom 7	None Detected
CLT-ACM-11	TSI elbow, white insulation with white canvas wrap	Storage room	Trace in canvas wrap; 3% chrysotile in insulation
CLT-ACM-12	TSI elbow, white insulation with white canvas wrap	Heater room	Trace in canvas wrap; 3% chrysotile in insulation
CLT-ACM-13	Yellow TSI on straight runs	Mechanical room	None Detected
CLT-ACM-14	Yellow TSI on straight runs	Mechanical room	None Detected
CLT-ACM-15	Yellow TSI on straight runs	Heater room	None Detected
CLT-ACM-16	9" x 9" brown floor tile with black mastic	Bedroom 6	4% chrysotile in tile; None detected in mastic
CLT-ACM-17	Black felt paper beneath floor tile (CLT-ACM-16)	Bedroom 6	None Detected
CLT-ACM-18	9" x 9" brown floor tile with black mastic	Radio room	4% chrysotile in tile; None detected in mastic
CLT-ACM-19	Black felt paper beneath floor tile (CLT-ACM-18)	Radio room	None Detected
CLT-ACM-20	Black felt insulation over fiberglass	Generator room ceiling	None Detected

Sample Number	Sample Description	Sample Location	Percent Asbestos
CLT-ACM-21	Black felt insulation over fiberglass	Battery room ceiling	None Detected
CLT-ACM-22	Black felt insulation over fiberglass	Generator room	None Detected
CLT-ACM-23	Black cove base with brown mastic	Bedroom 6	None Detected
CLT-ACM-24	Black cove base with brown mastic	Bedroom 1	None Detected
CLT-ACM-25	White vent caulk	Exterior vent	5% chrysotile in black layer; Trace in white caulk
CLT-ACM-26	White vent caulk	Exterior vent	0.25% chrysotile by Point Count
CLT-ACM-27	White panel caulk	Exterior panels	6% chrysotile in black layer; 10% chrysotile in white layer
CLT-ACM-28	White panel caulk	Exterior panels	5% chrysotile in black layer; 10% chrysotile in white layer
CLT-ACM-29	Canvas wrap over white vent insulation on generator	Generator room	85% amosite in canvas wrap; 85% chrysotile in insulation
CLT-ACM-30	Black HVAC vibration damper	Mechanical room	None Detected
CLT-ACM-31	Black HVAC vibration damper	Mechanical room	None Detected
CLT-ACM-32	Brown door insulation	Bedroom 6	None Detected
CLT-ACM-33	Fire hose	Hallway	None Detected

Friable ACM

- All hard packed TSI elbows are considered friable when impacted/disturbed and will require removal prior to demolition. There are approximately 30 fittings on the Quarters Deck. The elbows can be found in the Mechanical Room, above the ceiling tile in the Galley Store, the Storage Room, the hallway just outside the Flammable Storage room and in the Heater Room. See samples CLT-ACM-01, -02, -03, -11 and -12.
- The TSI insulation associated with the Generator exhaust stack in the Generator Room is friable and will require removal prior to demolition. There is approximately 10 linear feet of insulation on the exhaust stacks. See samples CLT-ACM-04 and -05.
- The canvas wrap with white insulation on the exhaust stack of the Generator in the Generator Room is friable and will require removal prior to demolition. There is approximately 2 square of the wrap insulation. See sample CLT-ACM-29.

Category I Non-Friable ACM

- There is approximately 3,700 square feet of brown floor tile located throughout the entire Quarter Deck with the exception of the following rooms: Generator Room, Heater Room, Flammable Room, Battery Room and CO_2 Room. Category I materials may remain in place during demolition if they can be maintained in a non-friable condition. If the tile will be rendered friable during demolition, then they must be removed prior to demolition.

Category II Non-Friable ACM

- All caulk materials are considered asbestos containing and non-friable. The caulk materials can be found on all exterior panels (yellow and blue) and on many vent covers and windows. Category II materials may remain in place during demolition unless they will be rendered friable during demolition.

Limitations

The Recreation and Lounge section of the Quarters Deck could not be accessed due to structural integrity concerns. Based on visual observations from the doorways, the building materials are similar to all other materials sampled. Asbestos containing floor tile were observed throughout the entire Recreation and Lounge area and were included in the estimated total above.

There were two fittings associated with the drains beneath the Quarters Deck. They were not accessible due to safety concerns.

2.2 LEAD

2.2.1 General Information and Definitions

Lead-based paint (LBP) testing was conducted by Mr. Andre Gonzalez on August 28th, 2013. Based on current regulatory definitions, LBP is defined as paint containing lead concentrations equal to or greater than 1.0 milligrams per square centimeter (mg/cm^2) when using an X-ray fluorescence (XRF) analyzer. The XRF provides the measured lead concentration in weight of lead per unit area.

FEI conducted LBP testing of representative interior and exterior building surfaces/materials, which are painted/coated or potentially lead-containing. We also tested non-building components such as electrical boxes, boilers, overhead cranes, etc… Surfaces/materials which are expected to be disturbed by the planned demolition were targeted for testing. The results of the targeted LBP testing will be used to develop the scope of abatement which will be required as part of the planned demolition activities.

The testing conducted was not intended to represent a lead paint inspection as defined in accordance with the U.S. Department of Housing and Urban Development (HUD) document entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing – Chapter 7: Lead-Based Paint Inspection, 1997 Revision".

Painted, stained, or varnished interior/exterior building components included metal floors, walls, ceilings, panels, windows, doors, stairs, structural columns, and miscellaneous components.

2.2.2 Investigation Procedures

LBP testing was performed throughout the structure using a Innov-X Alpha Series Model a-2000 XRF spectrum analyzer (Serial Number 9125). The instrument was calibrated on 8/26/2013 and field calibrated on 8/28/2013 prior to use and throughout the day. No paint chip sampling or laboratory analysis was performed as part of the targeted sampling activities.

Each painted or potential lead-containing building component was visually inventoried and then tested at least once per room or room equivalent. Each painted or potential lead containing building component was also tested at least once per exterior area where accessible.

Interior sides of the rooms are based upon the direction facing while conducting the testing. Each side was designated as Side A, Side B, Side C and Side D. Corresponding Figures depicting the sample locations are labeled accordingly to assist the user of this document with regard to which wall in a particular room was sampled.

2.2.3 Limitations

Lighting in most areas was limited to natural sunlight and/or flashlights. The Recreation & Lounge area including the Galley were not accessible due to failing structural integrity of the floor. All levels below the Maintenance Deck were not accessible due to safety concerns.

2.2.4 Observations and Results

- There is approximately 9,300 square feet of structural steel framing associated with the Machinery & Quarters and staircase to the Tower. It is in fair to poor conditions in locations where it's exposed to sunlight. For example, the paint is peeling on many of the window ledges throughout the perimeter rooms. The structural steel which is not exposed to sunlight tends to be primarily in good condition with isolated locations that are in fair condition. Any renovation activity that will impact the structural steel will require removal in those locations prior to disturbance. The paint in poor condition will require removal. Any paint on the structural steel that will not be removed as part of a renovation should be encapsulated.
- There is approximately 1,000 square feet of white LBP on the walls and doors by the Mechanical Room. The paint is in fair to poor condition. Removal will be required prior to any renovation activities that may impact the walls.
- There is approximately 1,600 square feet of LBP on the floor and walls of the stairwell down to the Oceanographic Room. The paint is in poor condition and remediation will be necessary.
- There is approximately 1,000 square feet of LBP on the floor of the followings rooms: Generator Room, CO_2 Room, Battery Room, Passageway, Storage, Heater Room and Flammable Storage Room. The paint is in poor condition and will require remediation.
- There is approximately 1,000 square feet of LBP on the stair system from the Generator Room to the top of the Tower. The stair system includes the stringer, riser, tread, newel, newel cap, handrail and baluster. The paint is in poor condition and will require remediation.
- There is approximately 3,660 square feet of blue and yellow exterior panels of the Machinery & Quarters Deck. The panels are in good condition. Depending on the planned renovation activities, the panels may remain in place if no impact is planned.

Note: The Jacket Structure below the Machinery & Quarters Deck did not contain LBP.

Table 2 below summarizes the sampled component, location and the lead content in milligrams per square centimeter (mg/cm^2).

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
1	Standardization				0.019667	PASS
2	Wall	Bedroom 1	C	Blue	0.05	Negative
3	Window frame	Bedroom 1	C	Blue	> 5.00	Positive
4	Structural steel window sill	Bedroom 1	C	Blue	> 5.00	Positive
5	Wall	Bedroom 1	D	Blue	0.1	Negative
6	Wall metal base plate	Bedroom 1	D	Blue	0.03	Negative
7	Structural steel	Bedroom 1	B	Blue	> 5.00	Positive
8	Door jam	Bedroom 1	A	Beige	0	Negative
9	Door (inside room)	Bedroom 1		Blue	0.03	Negative
10	Door (hall side)	Bedroom 1		Yellow	0.09	Negative
11	Wall	Bedroom 2	B	Beige	0.16	Negative
12	Structural steel window sill	Bedroom 2	C	Beige	> 5.00	Positive
13	Window frame	Bedroom 2	C	Beige	3.92	Positive
14	Door jam	Bedroom 2	A	Beige	0	Negative
15	Door (inside room)	Bedroom 2		Beige	0.16	Negative
16	Wall	Hall by Bedroom 3		Yellow	0.08	Negative
17	Wall metal base plate	Hall between Bedroom 3 and 4		Black	3.55	Positive
18	Wall	Hall between Bedroom 3 and 4		Fire Red	0.01	Negative
19	Wall	Bedroom 3	B	Biege	0	Negative
20	Structural steel window sill	Bedroom 3	C	Biege	> 5.00	Positive
21	Wall metal base plate	Bedroom 3	D	Biege	0	Negative
22	Wall	Bedroom 3	D	Biege	0	Negative
23	Wall	Bedroom 4	C	Blue	0.03	Negative
24	Wall	Bedroom 4	D	Blue	0.02	Negative
25	Window frame	Bedroom 4	C	Blue	> 5.00	Positive
26	Wall metal base plate	Bedroom 4	D	Blue	0.02	Negative

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
27	Wall metal base plate	Hall between Bedrooms 4 & 5		Black	0.09	Negative
28	Wall	Hall between Bedrooms 4 & 5		Beige	> 5.00	Positive
29	Wall	Hall between Bedrooms 4 & 5		Beige	0.09	Negative
30	Wall	Hall between Bedrooms 4 & 5		Beige	> 5.00	Positive
31	Wall	Hall outside Bedroom 5		Yellow	0.06	Negative
32	Wall metal base plate	Hall outside Bedroom 5		Black	2.54	Positive
33	Wall	Office	B	Beige	0.02	Negative
34	Window frame	Office	B	Beige	> 5.00	Positive
35	Door to Radio Room	Office	D	Beige	0.01	Negative
36	Wall	Office	A	Beige	0	Negative
37	Wall metal base plate	Office	C	Black	0.01	Negative
38	Door jam	Office	C	Beige	0.02	Negative
39	Wall	Hall outside Radio Room		Yellow	0.06	Negative
40	Wall	Radio Room	B	Beige	0	Negative
41	Door frame	Radio Room	B	Beige	0.01	Negative
42	Wall	Radio Room	A	Beige	0.03	Negative
43	Wall metal base plate	Radio Room	A	Black	0.05	Negative
44	Wall	Radio Room	D	Beige	0.01	Negative
45	Structural steel	Radio Room	D	Beige	> 5.00	Positive
46	Cabinet shelac	Radio Room		Clear	0.05	Negative
47	Cove base paint on cabinets	Radio Room		Black	0.06	Negative
48	Wall	Bedroom 5	B	Yellow	0	Negative
49	Wall	Bedroom 5	C	Yellow	0.03	Negative
50	Structural steel	Bedroom 5	C	Yellow	> 5.00	Positive
51	Wall	Bedroom 5	D	Yellow	0.01	Negative
52	Wall metal base plate	Bedroom 5	B	Black	0.02	Negative
53	Wall metal base plate	Hall between bedrooms 5 & 6		Black	4.39	Positive
54	Wall	Bedroom 6	B	Blue	0	Negative

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
55	Structural steel	Bedroom 6	C	Blue	> 5.00	Positive
56	Radiator	Bedroom 6	C	Blue	0.01	Negative
57	Wall metal base plate	Bedroom 6	B	Blue	0.01	Negative
58	Wall	Bedroom 6	A	Blue	0.01	Negative
59	Wall	Hall outside bedroom 6		White	0.07	Negative
60	Wall	Bedroom 7	B	Green	0.02	Negative
61	Wall	Bedroom 7	C	Green	0.02	Negative
62	Window frame	Bedroom 7	C	Green	> 5.00	Positive
63	Wall	Bedroom 7	D	Green	1	Negative
64	Wall	Bedroom 7	D	Green	0.01	Negative
65	Ceiling tile grid	Bedroom 7		Gray	0	Negative
66	Ceiling vent	Bedroom 7		Black	0.03	Negative
67	Door	Bedroom 7		Beige	0	Negative
68	Wall	Linen Closet	A	Beige	0	Negative
69	Wall	Linen Closet	B	Beige	0	Negative
70	Wall	Linen Closet	C	Beige	0	Negative
71	Door jam	Linen Closet		Beige	0	Negative
72	Wall board	Mechanical room hall	B	Black	0.09	Negative
73	Wall	Mechanical room hall	B	White	3.25	Positive
74	Wall	Mechanical room hall	B	White	2.52	Positive
75	Door	Mechanical room		White	2.34	Positive
76	Door	Mechanical room		Beige	0	Negative
77	Wall	Mechanical room	C	Beige	0	Negative
78	Electrical distribution panel	Mechanical room		Gray	0.01	Negative
79	Cooler	Mechanical room		Gray	0.01	Negative
80	Trane heater	Mechanical room		Gray	0.01	Negative
81	Wall	General store	B	Gray	0.02	Negative
82	Wall	General store	C	Gray	0.01	Negative

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
83	Wall	General store	D	Gray	0.02	Negative
84	Air conditioner unit	General store		Beige	0	Negative
85	Wall	Cook's bathroom	D	White	0.13	Negative
86	Wall	Cook's bathroom	A	White	0.13	Negative
87	Door	General store		White	3.28	Positive
88	Door	Cook's bathroom		White	0.12	Negative
89	Electrical box	Hall by General store		White	0	Negative
90	Electrical box	Hall by General store		White	3.06	Positive
91	Wall	Cook's bathroom	B	White	0.14	Negative
92	Wall	Cook's bathroom	B	White	0.12	Negative
93	Wall	Passageway to outside	C	Yellow	0.06	Negative
94	Wall metal base plate	Passageway to outside	C	Black	0.11	Negative
95	Structural steel	Passageway to outside	C	Yellow	4.79	Positive
96	Door frame	Passageway to outside		Yellow	> 5.00	Positive
97	Door (inside)	Passageway to outside		Yellow	0.09	Negative
98	Door (outside)	Passageway to outside		Gray	0	Negative
99	Wall	Passageway to outside	A	White	0.05	Negative
100	Wall	Passageway to outside	A	Yellow	0.07	Negative
101	Wall	Hall by Bedroom 7		White	0.06	Negative
102	Bathroom stall partition	Bathroom		Blue	0.04	Negative
103	Wall	Bathroom		Blue	0.01	Negative
104	Door (hallway side)	Bathroom		Yellow	2.97	Positive
105	Door (inside bathroom)	Bathroom		Yellow	0.04	Negative
106	Wall	Hall by Utility room		Yellow	0.08	Negative
107	Wall	Hall by Utility room		Yellow	0.09	Negative
108	Wall	Hall by Utility room		Biege	2.26	Positive
109	Wall	Hall by Utility room		Yellow	0.08	Negative
110	Wall	Hall by Rec room door		Yellow	0.08	Negative

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
111	Wall	Hall by door to outside		Yellow	0.01	Negative
112	Wall	Hall by door to outside		Yellow	0.08	Negative
113	Wall	Hall by Passagway		Yellow	0.1	Negative
114	Wall	Hall by Utility room		Yellow	0.06	Negative
115	Wall metal base plate	Hall by hallway intersection		Black	0.07	Negative
116	Wall metal base plate	Hall by hallway intersection		Black	0.07	Negative
117	Wall metal base plate	Hall by stair to Oceanographic		Black	0.08	Negative
118	Wall	Utility room	B	Beige	0.09	Negative
119	Wall	Utility room	B	Black	0.06	Negative
120	Wall	Utility room	D	Beige	0.11	Negative
121	Wall	Utility room	A	Beige	0.07	Negative
122	Structural steel	Utility room		Beige	4.73	Positive
123	Door	Storage room		White	0.09	Negative
124	Wall	Storage room	B	Blue	0	Negative
125	Wall	Storage room	A	Blue	0	Negative
126	Wall	Storage room	D	Blue	0	Negative
127	Wall	Stairs to Oceanographic		Beige	0.08	Negative
128	Wall	Stairs to Oceanographic		Blue	> 1.00	Positive
129	Wall	Stairs to Oceanographic		Blue	> 5.00	Positive
130	Wall	Oceanographic room		White	2.92	Positive
131	Wall	Oceanographic room		White	3.47	Positive
132	Cage frame	Oceanographic room		White	0.08	Negative
133	Door	Oceanographic room		Gray	0.14	Negative
134	Metal duct at ceiling	Oceanographic room		White	> 1.00	Positive
135	Workbench leg	Oceanographic room		White	0.06	Negative
136	Door	Oceanographic room		Gray	0	Negative
137	Door	Bottom of stairs to outside		Gray	0.09	Negative
138	Stair riser	Stairs to Oceanographic		Red	3.32	Positive

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
139	Stair railing	Stairs to Oceanographic		Gray	> 5.00	Positive
140	Standardization				0.01966	PASS
141	Wall	Passageway to Generator room	A	Gray	0.02	Negative
142	Wall	Flammable storage	C	Gray	0	Negative
143	Wall	Flammable storage	B	Gray	0.06	Negative
144	Floor	Flammable storage		Red	> 3.15	Positive
145	Door	Passageway to Generator room		Gray	0.11	Negative
146	Floor	Generator Room		Red	4.15	Positive
147	NASA tank	Generator Room		Red	0	Negative
148	Wall	Generator Room	D	Gray	0.01	Negative
149	Conduit box	Generator Room		Gray	0.01	Negative
150	VOID - insufficient time				0.03	Insufficient Test Time
151	Electrical box	Generator Room		Gray	0.07	Negative
152	Electrical box	Generator Room		Gray	0.04	Negative
153	Fire riser	Generator Room		Red	0.05	Negative
154	Wall base board	Generator Room	D	Red	2.49	Positive
155	Wall	Generator Room	B	Gray	0.02	Negative
156	Generator motor	Generator Room		Green	0.09	Negative
157	Generator motor	Generator Room		Green	0	Negative
158	Structural steel	Generator Room		Gray	> 5.00	Positive
159	Wall	Heater room	C	Gray	0.02	Negative
160	Wall	Heater room	D	Gray	0.03	Negative
161	Wall	Heater room	A	Gray	0.04	Negative
162	Double door to outside	Generator Room		Gray	0.09	Negative
163	Overhead crane	Generator Room		Red	1.12	Positive
164	Overhead crane	Generator Room	Black	Yellow	2.64	Positive

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
165	Stair rail	Stairs to Heli deck		Gray	> 5.00	Positive
166	Stair riser	Stairs to Heli deck		Gray	1.32	Positive
167	Stair tread	Stairs to Heli deck		Gray	> 5.00	Positive
168	Stair handrail	Stairs to Heli deck		Gray	3.22	Positive
169	Window sill	Watch tower		Gray	2.88	Positive
170	Floor	Watch tower		Gray	4.83	Positive
171	Floor	Heli Pad deck		White	0.01	Negative
172	Safety stripe on floor	Heli Pad deck		Yellow	> 2.60	Positive
173	Class M1 Laser box	Heli Pad deck		White	0	Negative
174	Standarization				0.019661	PASS
175	Wall	Recreation & Lounge doorway		Blue	0	Negative
176	Door jam	Recreation & Lounge doorway		Brown	0.05	Negative
177	Door	Exterior door		Brown	0.07	Negative
178	Structural steel ceiling I-beam	Generator Room		Gray	4.96	Positive
179	Structural steel cross member	Generator Room		Gray	3.19	Positive
180	Wall	Heli Pad tower		Blue	> 3.48	Positive
181	Wall	Heli Pad tower		Blue	> 2.66	Positive
182	Vent hatch	Heli Pad deck		Yellow	> 1.36	Positive
183	Fog horn	Heli Pad deck		White	0.03	Negative
184	Wall	Quarters deck exterior panel		Yellow	> 2.53	Positive
185	Wall	Quarters deck exterior panel		Yellow	> 2.43	Positive
186	Stair riser	Exterior stairs		Gray	0	Negative
187	Maintenance deck supports	Maintenance deck		Gray	0.09	Negative
188	Stair riser	Maintenance deck		Gray	0.12	Negative
189	Exterior wall of Oceanographic	Maintenance deck		Gray	0.07	Negative
190	Maintenance deck supports	Maintenance deck		Gray	0.06	Negative
191	Wall	Storage room	B	Gray	0.05	Negative
192	Door	Battery room		Gray	0.05	Negative

Reading	Component	Location	Side	Color	Lead mg/cm2	Pass Fail Standard
193	Wall	Battery room	B	Gray	0.01	Negative
194	Wall	Battery room	D	Gray	0.02	Negative
195	Wall	Battery room	C	Gray	0.01	Negative
196	Wall	Battery room	A	Gray	0	Negative
197	Floor	Battery room		Red	4.62	Positive